BASELINE RISK ASSESSMENT BITTERROOT VALLEY, MONTANA

Prepared by (in alphabetical order by last name)

Kali Frost MSES/MPA, May 2008

> Mary Ruhter MSES, May 2008

Dayu Zhang
Department of Biology

For

Ms. Judy Hoy Wildlife Rehabilitator Stevensville, Montana

and

Dr. Diane Henshel E560-Environmental Risk Analysis School of Public and Environmental Affairs

> May 2008 Indiana University Bloomington, Indiana



CONCLUSIONS AND NEXT STEPS

Based on the physicochemical properties and chemical structures of the pesticides used in Idaho, these compounds have the potential to bioaccumulate and cause endocrine disruption. Endocrine disruption can result in both skeletal and reproductive malformations. There appears to be a strong correlation with malformation incidence and pesticide use in Idaho. Additionally, based on HYSPLIT modeling, it appears that air transport of long range pesticides used in Idaho potato crops may occur. Therefore, the following recommendations are made:

- Conduct a data gathering effort to compile available pesticide sampling data in the Bitterroot Valley
- Conduct a baseline risk assessment using measured data and evaluate uncertainties through models
- Specifically, air modeling should be conducted to determine whether
 pesticides used in Idaho may be transported to the Bitterroot Valley of
 Montana at concentrations that would be adversely impact human health
 and the environment
- Determine how contamination may compartmentalize within site media
- Perform bioaccumulation modeling and a thorough evaluation of synergistic affects that may occur
- Further study into potential co-solvent exposure
- Further investigation of regional wildlife exposure including wildlife that inhabit Yellowstone National Park and Glacier National Park
- Re-evaluate study status for additional next steps

Dear Ravalli County Commissioners, Glenda has a PDF of the entire report.

Thank you, Judy Hoy